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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,825	03/04/2004	Takahiro Inoue	249945US2	3629
22850	7590	05/09/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NGUYEN, LONG T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/791,825

Applicant(s)

INOUE, TAKAHIRO

Examiner

Long Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 4, line 23, "MOD-type" should be changed to --MOS-type--. Appropriate correction is required.

Claim Objections

2. Claims 1-4 are objected to because of the following informalities:

Claim 1, line 3, "the gate of" should be deleted.

Claim 1, line 5, "the gate of" should be deleted.

Claim 1, line 10, "gate" should be deleted.

Claims 2-4 are objected to because they include the informalities of claim 1.

Also, in claim 3, it appears that "device turned" on line 2 needs to be changed to --device which is turned--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 2, the phrase "a second gate turn-on circuit other than a first gate turn-on circuit having said first and third switches" recited on lines 2 and 3 is indefinite because it is not clear whether the first gate turn-on circuit having said first and third switches, or the

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second gate turn-on circuit having said first and third switches. Further, it is not clear whether “a first gate turn-on circuit” recited in the above phrase is inside of the semiconductor apparatus or not. It appears that the recitation “a second gate turn-on circuit other than a first gate turn-on circuit having said first and third switches” on lines 2-3 needs to be changed to --a second gate turn-on circuit other than a first gate turn-on circuit of said semiconductor apparatus, wherein said first and third switches of the semiconductor apparatus form said first gate turn-on circuit--.

Appropriate correction and/or clarification is requested.

Claim 3 is indefinite because it includes the indefiniteness of claim 1. Also in claim 3, it is not clear whether either one of “a first turn-on operation” (lines 2 and 4) and “a second turn-on operation” is the same as the “turn-on operation” recited earlier (line 2, claim 1), i.e., the relationship between the turn-on operation (of claim 1) and the first and second turn-on operations is not clear.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichikawa (USP 6,333,665).

Note that each of the circuits in Figures 4 and 7-9 of the Ichikawa reference discloses a semiconductor apparatus, which includes: a MOS-type device (10); a first switch (12); a second switch (13); a third switch (15); a fourth switch (16); first timer means (18) for turning on the third switch (15) in conjunction with the turn-on of the first switch (12), and then turn off the third switch after a first predetermined time from the turn-on of the third switch (see timing diagram in Figure 4 for more detail); and second timer means (19) for turning on the fourth switch (16) in conjunction with the turn-on of the second switch (13), and then turning off the fourth switch after a second predetermined time from the turn-on of the fourth switch (also see timing diagram in Figure 4, note that fourth switch 16 from on to off is when the signal SW16ON SIGNAL from Hi goes to Lo). Also note that, from the timing diagram in Figure 4, it is seen that the first predetermined time is set at a value allowing the MOS-type device (10) to be turned on after the first and third switches (12 and 15) are turned on (when the first and third switches 12 and 15 are ON, then gate of transistor 10 is Hi and thus transistor 10 is ON), and the second predetermined time is set at a value allowing the MOS-type device (10) to be turned off after said second and fourth switches (13 and 16) are turned on (when the second and fourth switches 13 and 16 are ON, then gate of transistor 10 is Lo and thus transistor 10 is OFF).

7. Claims 1 and 4 are also rejected under 35 U.S.C. 102(e) as being anticipated by Klein et al. (USP 6,756,826).

Note that each of Figures 4 and 9 of the Ichikawa reference discloses a semiconductor apparatus, which includes: a MOS-type device (72); a first switch (56); a second switch (58); a third switch (64); a fourth switch (66); first timer means (52) for turning on the third switch (64) in conjunction with the turn-on of the first switch (56), and then turn off the third switch after a

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first predetermined time (because of the one-shot pulse generated from one-shot 52) from the turn-on of the third switch (64, Col. 4, lines 2-27); and second timer means (54) for turning on the fourth switch (66) in conjunction with the turn-on of the second switch (58), and then turning off the fourth switch (66) after a second predetermined time (because of the one-shot pulse generated from one-shot 64) from the turn-on of the fourth switch (Col. 4, lines 2-27). Also note that, it is seen that the first predetermined time is set at a value allowing the MOS-type device (72) to be turned on after the first and third switches (56 and 64) are turned on (when the first and third switches 56 and 64 are ON, then gate of transistor 72 is Hi and thus transistor 72 is ON), and the second predetermined time is set at a value allowing the MOS-type device (72) to be turned off after said second and fourth switches (58 and 66) are turned on (when the second and fourth switches 58 and 66 are ON, then gate of transistor 72 is Lo and thus transistor 72 is OFF).

Allowable Subject Matter

8. Claims 2 and 3 would be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and if amended to overcome the indefinites set forth above.

Conclusion

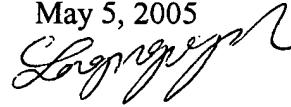
9. Any inquiry concerning this communication or earlier communications from the examiner should be directly to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Thursday from 8:00am to 6:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 5, 2005



LONG NGUYEN
PRIMARY EXAMINER